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10/815,043	03/31/2004	Masaaki Ogura	RCOH-1070	7837
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EXAMINER KIM, JUNG W				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/815,043

**Applicant(s)**

OGURA, MASAOKI

**Examiner**

JUNG KIM

**Art Unit**

2432

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Office action is in response to the RCE filed on 5/8/09.
2. Claims 1-39 are pending.

#### ***Continued Examination Under 37 CFR 1.114***

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/20/09 has been entered.

#### ***Prior Amendments***

4. The double patenting rejections to claims 1, 10-14, 31-35, 40-44 and 46-51 as being unpatentable over claims 1-43 of copending Application No. 11,006,356 have been withdrawn as copending application 11,006,356 has been expressly abandoned.

#### ***Response to Arguments***

5. Applicant's arguments with respect to the amended claims have been considered but are moot in view of the new prior art rejections. In addition claims 1-9 are rejected

under 101 and claims 19-30 are rejected under 112/2<sup>nd</sup> paragraph. See rejections below.

***Claim Rejections - 35 USC § 101***

6. Claims 1-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-9 define a method of obtaining a digital certificate for communication devices. However, none of these steps require a specific machine; although the claims refer to communication devices, a digital certificate management device and/or an information processing device, none of the steps are defined as being implemented by a particular machine. In addition, there is no transformation of an article or representation of an article (the method only discloses modification of "identification information" and "digital certificates") See *In re Bilski*, 2007-1130 at 15, ("At present, however, and certainly for the present case, we see no need for such a departure and reaffirm that the machine-or-transformation test, properly applied, is the governing test for determining patent eligibility of a process under § 101." The Court also points to the *Abele* case where a dependent process claim was determined to be statutory under 101 but not the independent claim; the dependent claim was a sufficiently specific transformation because it changed "raw data into a particular visual depiction of a physical object on a display"; the transformed object must be "physical objects or substances" or "representative of physical objects or substances," *id.* at 30 and 32).

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 19-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Independent claims 19, 23 and 27 define the limitation "a memory unit for storing the predetermined number of digital certificates for the daily production units." There is insufficient antecedent basis for the limitation "the predetermined number of digital certificates" in the claims.

Dependent claims 20, 24, 28 define the limitation "wherein said digital certificate transmission unit confirms the communication device based upon the digital certificate," however, parent claims 19, 23, 27 respectively define a "first digital certificate transmission unit" and a "second digital certificate transmission unit"; it is not clear to which transmission unit the claims are referring. Also, because parent claims 19, 23, 27 define "a predetermined number of digital certificates," it is not clear to which digital certificate claims 20, 24 and 28 are referring.

Dependent claims 21, 22, 25, 26, 29, 30 define "writing the digital certificate in the communication device"; it is not clear to which digital certificate claims 21, 22, 25, 26, 29, 30 are referring; parent claims 19, 23, 27 define "a predetermined number of digital certificates stored in each communication device."

***Claim Rejections - 35 USC § 103***

10. Claims 10-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilhuber et al. US 7,386,721 (hereinafter Vilhuber) in view of Amro et al. US 7,159,018 (hereinafter Amro) and Beasley et al. US 4,827,423 (hereinafter Beasley).

11. As per claim 10, Vilhuber discloses an information processing apparatus for obtaining a digital certificate for communication devices (fig. 2, reference no. 202), comprising:

- a. a digital certificate transmission request unit and a communication terminal for adding identification information of a communication device to a digital certificate transmission request for obtaining a digital certificate to be used for confirming the communication device during communication and transmitting the identification-information-added digital certificate transmission request to a digital certificate management device (5:19-24; 6:36-49; 8:19-21, disclosing a preferred embodiment where the provisioning environment "communicate[s] with a remote certificate authority 110 as part of a device identity verification and certification process."); and
- b. a digital certificate processing unit connected to said digital certificate transmission request unit for receiving a corresponding one of the digital certificates from the digital certificate management device in response to the identification-information-added digital certificate transmission request, said processing digital certificate unit transmitting the correspondingly received digital

certificate to the communication device and writing the correspondingly received digital certificate to memory in the communication device. (8:5-8 and lines 21-49)

12. Vilhuber does not disclose a production management system for providing production numbers as part of the identification information and a scanning unit for scanning identification information from a communication device. Amro discloses a method for building a computer system, whereby a production identifier is associated with order information and is stored in a database; wherein the production identifier is coded as a barcode on an identification device; once the barcode is scanned, the production identifier is stored in a server; when the computer system is assembled then powered up, the production identifier is sent to the server, where a script on the server associated with the scanned identifier is executed; one or more software components are then installed onto the computer system by the server. Figs. 2 and 3, col. 2:60-3:8; 3:52-4:4; 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a production management system for providing production numbers as part of the identification information and a scanning unit for scanning identification information from a communication device. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary skill in the art. See also, Amro, col. 1:27-32.

13. In addition, although Vilhuber does not disclose a communication terminal for obtaining a predetermined number of daily production units according to a daily production plan and receiving a corresponding digital certificates for the predetermined number of daily production units, daily production schedules are conventional means in

the art of manufacturing. Daily production schedules enable the manufacturer to implement "just-in-time" (JIT) principles. JIT principles suggest obtaining materials and similar requirements for the production of a product on an as needed basis. One of the benefits of JIT principles is that delivery of essential requirements is received on a continuous basis, thereby alleviating problems associated with large sporadic deliveries (e.g. storage allocation, bottlenecks, etc.). For example, Beasley discloses a computer integrated manufacturing system, whereby daily production schedules are established using multiple levels of computer control; the system further implements JIT by obtaining the relevant materials and supplies when the materials and supplies are needed. Col. 2:2-7; 3:40-67; 26:61-29:5 ("Scheduling"), esp. 27:29-37 and 28:49-54; 32:28-32. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Vilhuber to incorporate a communication terminal for obtaining a predetermined number of daily production units according to a daily production plan and receiving a corresponding digital certificates for the predetermined number of daily production units. One would be motivated to do so to implement JIT principles to derive a more efficient means of production as known to one of ordinary skill in the art.

14. Finally, the feature of connecting the digital certificate transmission request unit with the scanning unit and the communication terminal would be obvious to one of ordinary skill in the art because the information scanned from the barcode is included in the certificate request, and the number of digital certificates requested is based on the



number of the daily production units. The aforementioned cover the limitations of claim 10.

15. As per claim 11, Vilhuber discloses an information processing apparatus for obtaining a digital certificate for communication devices (fig. 2, reference no. 202), comprising:

- c. a digital certificate transmission request unit and a communication terminal for adding identification information of a predetermined number of communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming the communication devices during communication, said digital certificate transmission request unit transmitting the identification-information-added digital certificate transmission request to a digital certificate management device (5:19-24; 6:39-40; 8:19-21, disclosing a preferred embodiment where the provisioning environment "communicate[s] with a remote certificate authority 110 as part of a device identity verification and certification process.");
- d. a digital certificate processing unit connected to said digital certificate transmission request unit for receiving corresponding ones of the digital certificates from the digital certificate management device in response to the identification-information-added digital certificate transmission request, said digital certificate processing unit temporarily storing the correspondingly received digital certificates in memory of an information processing device (6:36-50); and

- e. an inputting unit connected to said digital certificate processing unit for inputting a portion of the identification information on the predetermined number of the communication devices to said digital certificate processing unit (5:53-67; 9:6-38), wherein said digital certificate processing unit reading the digital certificates corresponding to the inputted identification information from the information processing device, said digital certificate processing unit transmitting each of the correspondingly read digital certificates to a corresponding one of the communication devices according to the inputted identification information and writing each of the correspondingly read digital certificates to memory in the corresponding one of the communication devices. (8:5-8 and lines 21-49)
16. Vilhuber does not disclose a production management system for providing production numbers as part of the identification information and a scanning unit for scanning identification information from a communication device. Amro discloses a method for building a computer system, whereby a production identifier is associated with order information and is stored in a database; wherein the production identifier is coded as a barcode on an identification device; once the barcode is scanned, the production identifier is stored in a server; when the computer system is assembled then powered up, the production identifier is sent to the server, where a script on the server associated with the scanned identifier is executed; one or more software components are then installed onto the computer system by the server. Figs. 2 and 3, col. 2:60-3:8; 3:52-4:4; 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a production management

system for providing production numbers as part of the identification information and a scanning unit for scanning identification information from a communication device. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary skill in the art. See also, Amro, col. 1:27-32.

17. In addition, although Vilhuber does not disclose a communication terminal for obtaining a predetermined number of daily production units according to a daily production plan and receiving a corresponding digital certificates for the predetermined number of daily production units, daily production schedules are conventional means in the art of manufacturing. Daily production schedules enable the manufacturer to implement "just-in-time" (JIT) principles. JIT principles suggest obtaining materials and similar requirements for the production of a product on an as needed basis. One of the benefits of JIT principles is that delivery of essential requirements is received on a continuous basis, thereby alleviating problems associated with large sporadic deliveries (e.g. storage allocation, bottlenecks, etc.). For example, Beasley discloses a computer integrated manufacturing system, whereby daily production schedules are established using multiple levels of computer control; the system further implements JIT by obtaining the relevant materials and supplies when the materials and supplies are needed. Col. 2:2-7; 3:40-67; 26:61-29:5 ("Scheduling"), esp. 27:29-37 and 28:49-54; 32:28-32. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Vilhuber to incorporate a communication terminal for obtaining a predetermined number of daily production units according to a daily production plan and receiving a corresponding digital certificates for the predetermined

number of daily production units. One would be motivated to do so to implement JIT principles to derive a more efficient means of production as known to one of ordinary skill in the art.

18. Finally, the feature of connecting the digital certificate transmission request unit with the scanning unit and the communication terminal would be obvious to one of ordinary skill in the art because the information scanned from the barcode is included in the certificate request, and the number of digital certificates requested is based on the number of the daily production units. The aforementioned cover the limitations of claim 11.

19. As per claim 12, the rejection of claim 11 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro and Beasley is incorporated herein. In addition, Vilhuber discloses the information processing apparatus according to claim 11 further comprising a coding unit connected to said digital certificate processing unit for coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices according to the inputted identification information. Fig. 2, reference nos. 206 and 210.

20. As per claim 13, the rejection of claim 11 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro and Beasley is incorporated herein. Although Vilhuber does not expressly disclose an additional step of setting a completion flag indicative of successfully writing the digital certificate in the communication device

upon successfully completing said writing step; it is notoriously well known in the art at the time of invention to set a completion flag indicative of successful writing of data; a setting of a flag to indicate successful writing is a means of ensuring that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is capable of identifying an error state immediately; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include an additional step of setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said writing step. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 13.

21. As per claim 14, the rejection of claim 11 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro and Beasley is incorporated herein. In addition, Vilhuber discloses the information processing apparatus according to claim 11 further comprising a deleting unit connected to said digital certificate processing unit for deleting the digital certificate from the information processing device after said digital certificate processing unit successfully completes writing of the digital certificate in the communication device. (deletion of memory state in dynamic memory is an inherent

feature)

22. As per claim 15, Vilhuber discloses an information processing apparatus for obtaining a digital certificate for communication devices, comprising:

- f. a digital certificate transmission request unit and a communication terminal for adding identification information of a predetermined number of communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming the communication devices during communication, said digital certificate transmission request unit transmitting the identification-information-added digital certificate transmission request to a digital certificate management device (5:19-24; 6:39-40; 8:19-21, disclosing a preferred embodiment where the provisioning environment "communicate[s] with a remote certificate authority 110 as part of a device identity verification and certification process.");
- g. a digital certificate processing unit connected to said digital certificate transmission request unit for receiving corresponding ones of the digital certificates from the digital certificate management device in response to the identification-information-added digital certificate transmission request, said digital certificate processing unit temporarily storing the correspondingly received digital certificates in memory of an information processing device (6:36-49); and
- h. an input unit connected to the digital certificate processing unit for inputting identification information on the predetermined number of the

communication devices from a predetermined source(5:53-67), wherein said digital certificate processing unit reading the digital certificates corresponding to the input identification information from the information processing device, said digital certificate processing unit transmitting each of the correspondingly read digital certificates to a corresponding one of the communication devices according to the scanned identification information and writing each of the correspondingly read digital certificates to memory in the corresponding one of the communication devices. (8:5-8 and lines 36-49)

23. Vilhuber does not disclose a production management system for providing production numbers as part of the identification information and a scanning unit for scanning identification information from a communication device; a scanning unit connected to said digital certificate processing unit for scanning a barcode indicative of the identification information on the predetermined number of the communication devices from a predetermined source. Amro discloses a method for building a computer system, whereby a production identifier is associated with order information and is stored in a database; wherein the production identifier is coded as a barcode on an identification device; once the barcode is scanned, the production identifier is stored in a server; when the computer system is assembled then powered up, the production identifier is sent to the server, where a script on the server associated with the scanned identifier is executed; one or more software components are then installed onto the computer system by the server. Figs. 2 and 3, col. 2:60-3:8; 3:52-4:4; 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the

invention of Vilhuber to include a production management system for providing production numbers as part of the identification information and a scanning unit for scanning identification information from a communication device; a scanning unit connected to said digital certificate processing unit for scanning a barcode indicative of the identification information on the predetermined number of the communication devices from a predetermined source. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary skill in the art. See also, Amro, col. 1:27-32.

24. In addition, although Vilhuber does not disclose a communication terminal for obtaining a predetermined number of daily production units according to a daily production plan and receiving a corresponding digital certificates for the predetermined number of daily production units, daily production schedules are conventional means in the art of manufacturing. Daily production schedules enable the manufacturer to implement "just-in-time" (JIT) principles. JIT principles suggest obtaining materials and similar requirements for the production of a product on an as needed basis. One of the benefits of JIT principles is that delivery of essential requirements is received on a continuous basis, thereby alleviating problems associated with large sporadic deliveries (e.g. storage allocation, bottlenecks, etc.). For example, Beasley discloses a computer integrated manufacturing system, whereby daily production schedules are established using multiple levels of computer control; the system further implements JIT by obtaining the relevant materials and supplies when the materials and supplies are needed. Col. 2:2-7; 3:40-67; 26:61-29:5 ("Scheduling"), esp. 27:29-37 and 28:49-54;



32:28-32. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Vilhuber to incorporate a communication terminal for obtaining a predetermined number of daily production units according to a daily production plan and receiving a corresponding digital certificates for the predetermined number of daily production units. One would be motivated to do so to implement JIT principles to derive a more efficient means of production as known to one of ordinary skill in the art.

25. Finally, the feature of connecting the digital certificate transmission request unit with the scanning unit and the communication terminal would be obvious to one of ordinary skill in the art because the information scanned from the barcode is included in the certificate request, and the number of digital certificates requested is based on the number of the daily production units. The aforementioned cover the limitations of claim 15.

26. As per claim 16, the rejection of claim 15 under Vilhuber in view of Amro and Beasley is incorporated herein. In addition, Vilhuber discloses the information processing apparatus according to claim 15 further comprising a coding unit connected to said digital certificate processing unit for coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices according to the inputted identification information. Col. 12:33-51; fig. 2, reference no. 206.

27. As per claim 17, the rejection of claim 15 under Vilhuber in view of Amro and Beasley is incorporated herein. Although Vilhuber does not expressly disclose a flag setting unit connected to said digital certificate processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said writing step; it is notoriously well known in the art at the time of invention to set a completion flag indicative of a successful write; a setting of flag to indicate successful writing is a means of ensuring that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is capable of identifying an error state immediately; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a flag setting unit connected to said digital certificate processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said writing step. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 17.

28. As per claim 18, the rejection of claim 15 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro and Beasley is incorporated herein. In addition, Vilhuber discloses the information processing apparatus for according to claim 15 further comprising a deleting unit connected to said digital certificate processing unit

for deleting the digital certificate from the information processing device upon successfully completing said writing step. (deletion of memory state in dynamic memory is an inherent feature)

29. As per claim 19, Vilhuber discloses an information management system over a network (fig. 2), comprising:

- i. communication devices each further comprising a memory unit for storing a predetermined number of digital certificates (fig. 2, reference no. 104);
- j. an information processing unit connected to said communication devices (fig. 2, reference no. 202) further comprising:
  - i. a digital certificate transmission request unit and a communication terminal for adding identification information of a predetermined number of said communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming said communication devices during communication and for transmitting the identification-information-added digital certificate transmission (fig. 2, reference no. 206); and
  - ii. a first digital certificate transmission unit connected to said digital certificate transmission request unit (fig. 2, reference nos. 110, 206 and 250);
- k. a digital certificate management unit connected to said information processing unit (fig. 2, reference nos. 206 and 110; 8:19-21, disclosing a

preferred embodiment where the provisioning environment "communicate[s] with a remote certificate authority 110 as part of a device identity verification and certification process.") further comprising:

- iii. a digital certificate generation unit for receiving the identification-information-added digital certificate transmission and generating a corresponding one of the digital certificates (fig. 2, reference nos. 110 and 210); and
  - iv. a second digital certificate transmission unit connected to said digital certificate generation unit for transmitting the corresponding one of the digital certificates to said information processing unit (fig. 2, reference nos. 110, 206 and 250),
  - I. wherein said digital certificate transmission unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate transmission unit transmitting the correspondingly received digital certificate to the communication device and writing the correspondingly received digital certificate to said memory in the communication device. (5:19-24; 6:36-50; 8:5-8 and lines 21-49)
30. Vilhuber does not disclose a production management system for providing production numbers as part of the identification information and a scanning unit for scanning identification information from each of said communication device. Amro discloses a method for building a computer system, whereby a production identifier is

associated with order information and is stored in a database; wherein the production identifier is coded as a barcode on an identification device; once the barcode is scanned, the production identifier is stored in a server; when the computer system is assembled then powered up, the production identifier is sent to the server, where a script on the server associated with the scanned identifier is executed; one or more software components are then installed onto the computer system by the server. Figs. 2 and 3, col. 2:60-3:8; 3:52-4:4; 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a production management system for providing production numbers as part of the identification information and a scanning unit for scanning identification information from each of said communication device. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary skill in the art. See also, Amro, col. 1:27-32.

31. In addition, although Vilhuber does not disclose the communication devices further comprising a communication terminal for obtaining a predetermined number of daily production units according to a daily production plan wherein the memory unit stores a predetermined number of digital certificates for the daily production units, daily production schedules are conventional means in the art of manufacturing. Daily production schedules enable the manufacturer to implement "just-in-time" (JIT) principles. JIT principles suggest obtaining materials and similar requirements for the production of a product on an as needed basis. One of the benefits of JIT principles is that delivery of essential requirements is received on a continuous basis, thereby

alleviating problems associated with large sporadic deliveries (e.g. storage allocation, bottlenecks, etc.). For example, Beasley discloses a computer integrated manufacturing system, whereby daily production schedules are established using multiple levels of computer control; the system further implements JIT by obtaining the relevant materials and supplies when the materials and supplies are needed. Col. 2:2-7; 3:40-67; 26:61-29:5 ("Scheduling"), esp. 27:29-37 and 28:49-54; 32:28-32. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Vilhuber such that the communication devices further comprises a communication terminal for obtaining a predetermined number of daily production units according to a daily production plan wherein the memory unit stores a predetermined number of digital certificates for the daily production units. One would be motivated to do so to implement JIT principles to derive a more efficient means of production as known to one of ordinary skill in the art.

32. Finally, the feature of connecting the digital certificate transmission request unit with the scanning unit and the communication terminal would be obvious to one of ordinary skill in the art because the information scanned from the barcode is included in the certificate request, and the number of digital certificates requested is based on the number of the daily production units. The aforementioned cover the limitations of claim 19.

33. As per claim 20, the rejection of claim 19 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro and Beasley is incorporated herein. In

addition, Vilhuber discloses wherein said digital certificate transmission unit confirms the communication device based upon the digital certificate and further comprises a coding unit connected to said first digital certificate transmission unit for coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices. Fig. 2, reference nos. 206 and 210.

34. As per claim 21, the rejection of claim 19 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro and Beasley is incorporated herein. Although Vilhuber does not expressly disclose the information management system according to claim 19 further comprising a flag setting unit connected to said information processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device; it is notoriously well known in the art at the time of invention to set a completion flag indicative of a successful writing of data; a setting of a flag to indicate successful writing is a means of ensuring that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is capable of immediately identifying an error state; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a flag setting unit connected to said information processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device after said first digital certificate

transmission unit successfully completes writing of the digital certificate in the communication device. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 21.

35. As per claim 22, the rejection of claim 19 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro and Beasley is incorporated herein. In addition, Vilhuber discloses the information management system according to claim 19 further comprising a deleting unit connected to said information processing unit for deleting the digital certificate from said information processing device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device. (deletion of memory state in dynamic memory is an inherent feature)

36. Claims 1-9 and 23-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani et al. US 6,233,577 (hereinafter Ramasubramani) and Beasley.

37. As per claim 1, Vilhuber discloses a method of obtaining a digital certificate for communication devices, comprising the steps of:



- m. adding identification information of a communication device to a digital certificate transmission request for obtaining a digital certificate to be used for confirming the communication device during communication; transmitting the identification-information-added digital certificate transmission request to the digital certificate management device (5:19-24; 6:36-49; 8:19-21, disclosing a preferred embodiment where the provisioning environment "communicate[s] with a remote certificate authority 110 as part of a device identity verification and certification process.");
  - n. receiving a corresponding one of the digital certificates from the digital certificate management device in response to the identification-information-added digital certificate transmission request; transmitting the correspondingly received digital certificate to the communication device; and writing the correspondingly received digital certificate to memory in the communication device. (8:5-8 and lines 21-49)
38. Vilhuber does not disclose obtaining identification information corresponding to production numbers for communication devices; and scanning identification information from one of the communication devices. Amro discloses a method for building a computer system, whereby a production identifier is associated with order information and is stored in a database; wherein the production identifier is coded as a barcode on an identification device; once the barcode is scanned, the production identifier is stored in a server; when the computer system is assembled then powered up, the production identifier is sent to the server, where a script on the server associated with the scanned

identifier is executed; one or more software components are then installed onto the computer system by the server. Figs. 2 and 3, col. 2:60-3:8; 3:52-4:4; 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to obtain identification information corresponding to production numbers for communication devices; and scanning identification information from one of the communication devices. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary skill in the art. See also, Amro, col. 1:27-32.

39. In addition, Vilhuber does not disclose storing digital certificates each with corresponding identification information in a digital certificate management device. Ramasubramani discloses a centralized certificate management system whereby a certificate management module reserves a fixed number of free certificates to reduce latency of obtaining certificates by its requestors; when a request for a certificate is submitted to the certificate management device, a new certificate is generated to maintain the number of free certificates; wherein a request for a certificate includes a device ID, which indexes an account having associated with the account a digital certificate. Col. 6:56-6:60. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to store digital certificates each with corresponding identification information in a digital certificate management device. One would be motivated to do so to reduce the latency of obtaining certificates by its requestors as disclosed by Ramasubramani.

40. Finally, although Vilhuber does not disclose obtaining a predetermined number of daily production units according to a daily production plan and storing digital certificates only for each of the daily production units, daily production schedules are conventional means in the art of manufacturing. Daily production schedules enable the manufacturer to implement "just-in-time" (JIT) principles. JIT principles suggest obtaining materials and similar requirements for the production of a product on an as needed basis. One of the benefits of JIT principles is that delivery of essential requirements is received on a continuous basis, thereby alleviating problems associated with large sporadic deliveries (e.g. storage allocation, bottlenecks, etc.). For example, Beasley discloses a computer integrated manufacturing system, whereby daily production schedules are established using multiple levels of computer control; the system further implements JIT by obtaining the relevant materials and supplies when the materials and supplies are needed. Col. 2:2-7; 3:40-67; 26:61-29:5 ("Scheduling"), esp. 27:29-37 and 28:49-54; 32:28-32. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Vilhuber to further include obtaining a predetermined number of daily production units according to a daily production plan and storing digital certificates only for each of the daily production units. One would be motivated to do so to implement JIT principles to derive a more efficient means of production as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 1.

41. As per claim 2, Vilhuber discloses a method of obtaining a digital certificate for communication devices, comprising the steps of:

- o. adding identification information of a predetermined number of communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming the communication devices during communication; transmitting the identification-information-added digital certificate transmission request to the digital certificate management device (5:19-24; 6:39-40; 8:19-21, disclosing a preferred embodiment where the provisioning environment "communicate[s] with a remote certificate authority 110 as part of a device identity verification and certification process.");
- p. receiving corresponding ones of the digital certificates from the digital certificate management device in response to the identification-information-added digital certificate transmission request (6:36-49);
- q. temporarily storing the correspondingly received digital certificates in memory of an information processing device (6:45-50);
- r. inputting a portion of the identification information on the predetermined number of the communication devices (5:53-67; 9:6-38);
- s. reading the digital certificates corresponding to the inputted identification information from the information processing device; transmitting each of the correspondingly read digital certificates to a corresponding one of the communication devices according to the inputted identification information (8:5-8); and

- t. writing each of the correspondingly read digital certificates to memory in the corresponding one of the communication devices. (8:21-49)
42. Vilhuber does not disclose obtaining identification information corresponding to production numbers for communication devices; and scanning identification information from one of the communication devices. Amro discloses a method for building a computer system, whereby a production identifier is associated with order information and is stored in a database; wherein the production identifier is coded as a barcode on an identification device; once the barcode is scanned, the production identifier is stored in a server; when the computer system is assembled then powered up, the production identifier is sent to the server, where a script on the server associated with the scanned identifier is executed; one or more software components are then installed onto the computer system by the server. Figs. 2 and 3, col. 2:60-3:8; 3:52-4:4; 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to obtain identification information corresponding to production numbers for communication devices; and scanning identification information from one of the communication devices. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary skill in the art. See also, Amro, col. 1:27-32.
43. In addition, Vilhuber does not disclose storing digital certificates each with corresponding identification information in a digital certificate management device. Ramasubramani discloses a centralized certificate management system whereby a certificate management module reserves a fixed number of free certificates to reduce

latency of obtaining certificates by its requestors; when a request for a certificate is submitted to the certificate management device, a new certificate is generated to maintain the number of free certificates; wherein a request for a certificate includes a device ID, which indexes an account having associated with the account a digital certificate. Col. 6:56-6:60. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to store digital certificates each with corresponding identification information in a digital certificate management device. One would be motivated to do so to reduce the latency of obtaining certificates by its requestors as disclosed by Ramasubramani, *ibid*.

44. Finally, although Vilhuber does not disclose obtaining a predetermined number of daily production units according to a daily production plan and storing digital certificates only for each of the daily production units, daily production schedules are conventional means in the art of manufacturing. Daily production schedules enable the manufacturer to implement "just-in-time" (JIT) principles. JIT principles suggest obtaining materials and similar requirements for the production of a product on an as needed basis. One of the benefits of JIT principles is that delivery of essential requirements is received on a continuous basis, thereby alleviating problems associated with large sporadic deliveries (e.g. storage allocation, bottlenecks, etc.). For example, Beasley discloses a computer integrated manufacturing system, whereby daily production schedules are established using multiple levels of computer control; the system further implements JIT by obtaining the relevant materials and supplies when the materials and supplies are needed. Col. 2:2-7; 3:40-67; 26:61-29:5 ("Scheduling"), esp. 27:29-37 and 28:49-54;

32:28-32. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Vilhuber to further include obtaining a predetermined number of daily production units according to a daily production plan and storing digital certificates only for each of the daily production units. One would be motivated to do so to implement JIT principles to derive a more efficient means of production as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 2

45. As per claim 3, the rejection of claim 2 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley is incorporated herein. In addition, Ramasubramani discloses the method comprising the additional step of coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices according to the inputted identification information. Col. 12:33-51; fig. 2, reference no. 206.

46. As per claim 4, the rejection of claim 2 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley is incorporated herein. Although Vilhuber does not expressly disclose an additional step of setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said writing step; it is notoriously well known in the art at the time of invention to set a completion flag indicative of successful write; a setting of a flag to indicate successful writing is a means of ensuring

that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is capable of immediately identifying an error state; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include an additional step of setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said writing step. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 4.

47. As per claim 5, the rejection of claim 2 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley is incorporated herein. In addition, Vilhuber discloses the method further comprising an additional step of deleting the digital certificate from the information processing device upon successfully completing said writing step. (deletion of memory state in dynamic memory is an inherent feature)

48. As per claim 6, Vilhuber discloses a method of obtaining a digital certificate for communication devices, comprising the steps of:

- u. adding identification information of a predetermined number of communication devices for production to a digital certificate transmission request



- for obtaining digital certificates to be used for confirming the communication devices during communication; transmitting the identification-information-added digital certificate transmission request to the digital certificate management device (5:19-24; 6:39-40; 8:19-21, disclosing a preferred embodiment where the provisioning environment "communicate[s] with a remote certificate authority 110 as part of a device identity verification and certification process.");
- v. receiving corresponding ones of the digital certificates from the digital certificate management device in response to the identification-information-added digital certificate transmission request (6:36-49);
  - w. temporarily storing the correspondingly received digital certificates in memory of an information processing device (6:45-50);
  - x. inputting a portion of the identification information on the predetermined number of the communication devices (5:53-67);
  - y. reading the digital certificates corresponding to the input identification information from the information processing device; transmitting each of the correspondingly read digital certificates to a corresponding one of the communication devices according to the scanned identification information (8:5-8); and
  - z. writing each of the correspondingly read digital certificates to memory in the corresponding one of the communication devices. (8:21-49)
49. Vilhuber does not disclose obtaining identification information corresponding to production numbers for communication devices; scanning identification information from

one of the communication devices; and scanning a barcode indicative of the identification information on the predetermined number of the communication devices from a predetermined source. Amro discloses a method for building a computer system, whereby a production identifier is associated with order information and is stored in a database; wherein the production identifier is coded as a barcode on an identification device; once the barcode is scanned, the production identifier is stored in a server; when the computer system is assembled then powered up, the production identifier is sent to the server, where a script on the server associated with the scanned identifier is executed; one or more software components are then installed onto the computer system by the server. Figs. 2 and 3, col. 2:60-3:8; 3:52-4:4; 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to obtain identification information corresponding to production numbers for communication devices; scanning identification information from one of the communication devices; and scanning a barcode indicative of the identification information on the predetermined number of the communication devices from a predetermined source. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary skill in the art. See also, Amro, col. 1:27-32.

50. In addition, Vilhuber does not disclose storing digital certificates each with corresponding identification information in a digital certificate management device. Ramasubramani discloses a centralized certificate management system whereby a certificate management module reserves a fixed number of free certificates to reduce

latency of obtaining certificates by its requestors; when a request for a certificate is submitted to the certificate management device, a new certificate is generated to maintain the number of free certificates; wherein a request for a certificate includes a device ID, which indexes an account having associated with the account a digital certificate. Col. 6:56-6:60. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to store digital certificates each with corresponding identification information in a digital certificate management device. One would be motivated to do so to reduce the latency of obtaining certificates by its requestors as disclosed by Ramasubramani, *ibid*.

51. Finally, although Vilhuber does not disclose obtaining a predetermined number of daily production units according to a daily production plan and storing digital certificates only for each of the daily production units, daily production schedules are conventional means in the art of manufacturing. Daily production schedules enable the manufacturer to implement "just-in-time" (JIT) principles. JIT principles suggest obtaining materials and similar requirements for the production of a product on an as needed basis. One of the benefits of JIT principles is that delivery of essential requirements is received on a continuous basis, thereby alleviating problems associated with large sporadic deliveries (e.g. storage allocation, bottlenecks, etc.). For example, Beasley discloses a computer integrated manufacturing system, whereby daily production schedules are established using multiple levels of computer control; the system further implements JIT by obtaining the relevant materials and supplies when the materials and supplies are needed. Col. 2:2-7; 3:40-67; 26:61-29:5 ("Scheduling"), esp. 27:29-37 and 28:49-54;

32:28-32. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Vilhuber to further include obtaining a predetermined number of daily production units according to a daily production plan and storing digital certificates only for each of the daily production units. One would be motivated to do so to implement JIT principles to derive a more efficient means of production as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 6.

52. As per claim 7, the rejection of claim 6 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley is incorporated herein. In addition, Ramasubramani discloses the method comprising the additional step of coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices according to the scanned identification information. Col. 12:33-51; fig. 2, reference no. 206.

53. As per claim 8, the rejection of claim 6 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley is incorporated herein. Although Vilhuber does not expressly disclose an additional step of setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said writing step; it is notoriously well known in the art at the time of invention to set a completion flag indicative of a successful write; a setting of flag to indicate successful writing is a means of ensuring

that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is immediately capable of identifying an error state; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include an additional step of setting a completion flag indicative of successfully writing the digital certificate in the communication device upon successfully completing said writing step. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 8.

54. As per claim 9, the rejection of claim 6 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley is incorporated herein. In addition, Vilhuber discloses the method further comprising an additional step of deleting the digital certificate from the information processing device upon successfully completing said writing step. (deletion of memory state in dynamic memory is an inherent feature)

55. As per claim 23, Vilhuber discloses an information management system over a network (fig. 2), comprising:

- aa. communication devices each further comprising a memory unit for storing a predetermined number of digital certificates (fig. 2, reference no. 104);

bb. an information processing unit connected to said communication devices (fig. 2, reference no. 202) further comprising:

- v. an input unit for inputting identification information for said communication devices (5:53-67; 9:6-38);
- vi. a digital certificate transmission request unit for adding identification information of a predetermined number of said communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming said communication devices during communication and for transmitting the identification-information-added digital certificate transmission (fig. 2, reference no. 206); and
- vii. a first digital certificate transmission unit connected to said digital certificate transmission request unit (fig. 2, reference nos. 110, 206 and 250);

cc. a digital certificate management unit connected to said information processing unit (fig. 2, reference nos. 206 and 110; 8:19-21, disclosing a preferred embodiment where the provisioning environment "communicate[s] with a remote certificate authority 110 as part of a device identity verification and certification process.") further comprising:

- viii. a digital certificate generation unit for receiving the identification-information-added digital certificate transmission and generating a corresponding one of the digital certificates (fig. 2, reference nos. 110 and 210); and

ix. a second digital certificate transmission unit connected to said digital certificate generation unit for transmitting the corresponding one of the digital certificates to said information processing unit (fig. 2, reference nos. 110, 206 and 250),

dd. wherein said digital certificate transmission unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate transmission unit transmitting the correspondingly received digital certificate to the communication device and writing the correspondingly received digital certificate to said memory in the communication device. (6:36-50; 5:19-24; 8:5-8 and lines 36-49)

56. Vilhuber does not disclose a production management system for providing production numbers as a part of identification information. Amro discloses a system for building a computer system, whereby a production identifier is associated with order information and is stored in a database; wherein the production identifier is coded as a barcode on an identification device; once the barcode is scanned, the production identifier is stored in a server; when the computer system is assembled then powered up, the production identifier is sent to the server, where a script on the server associated with the scanned identifier is executed; one or more software components are then installed onto the computer system by the server. Figs. 2 and 3, col. 2:60-3:8; 3:52-4:4; 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a production management

system for providing production numbers as a part of identification information. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary skill in the art. See also, Amro, col. 1:27-32.

57. In addition, Vilhuber does not disclose a digital certificate storage unit for storing the digital certificates; wherein the digital certificate storage unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate transmission unit reading the correspondingly received digital certificate from said digital certificate storage unit based upon the inputted identification information. Ramasubramani discloses a centralized certificate management system whereby a certificate management module reserves a fixed number of free certificates to reduce latency of obtaining certificates by its requestors; when a request for a certificate is submitted to the certificate management device, a new certificate is generated to maintain the number of free certificates; wherein a request for a certificate includes a device ID, which indexes an account having associated with the account a digital certificate. Col. 6:56-6:60. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a digital certificate storage unit for storing the digital certificates; wherein the digital certificate storage unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate transmission unit reading the correspondingly received digital



certificate from said digital certificate storage unit based upon the inputted identification information. One would be motivated to do so to reduce the latency of obtaining certificates by its requestors as disclosed by Ramasubramani, *ibid*.

58. Finally, although Vilhuber does not disclose the communication devices further comprising a communication terminal for obtaining a predetermined number of daily production units according to a daily production plan wherein the memory unit stores a predetermined number of digital certificates for the daily production units, daily production schedules are conventional means in the art of manufacturing. Daily production schedules enable the manufacturer to implement "just-in-time" (JIT) principles. JIT principles suggest obtaining materials and similar requirements for the production of a product on an as needed basis. One of the benefits of JIT principles is that delivery of essential requirements is received on a continuous basis, thereby alleviating problems associated with large sporadic deliveries (e.g. storage allocation, bottlenecks, etc.). For example, Beasley discloses a computer integrated manufacturing system, whereby daily production schedules are established using multiple levels of computer control; the system further implements JIT by obtaining the relevant materials and supplies when the materials and supplies are needed. Col. 2:2-7; 3:40-67; 26:61-29:5 ("Scheduling"), esp. 27:29-37 and 28:49-54; 32:28-32. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Vilhuber such that the communication devices further comprises a communication terminal for obtaining a predetermined number of daily production units according to a daily production plan wherein the memory unit stores a

predetermined number of digital certificates for the daily production units. One would be motivated to do so to implement JIT principles to derive a more efficient means of production as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 23

59. As per claim 24, the rejection of claim 23 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley is incorporated herein. In addition, Vilhuber discloses wherein said digital certificate transmission unit confirms the communication device based upon the digital certificate and further comprises a coding unit connected to said first digital certificate transmission unit for coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices. Fig. 2, reference nos. 206 and 210.

60. As per claim 25, the rejection of claim 23 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley is incorporated herein. Although Vilhuber does not expressly disclose the information management system according to claim 23 further comprising a flag setting unit connected to said information processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device; it is notoriously well known in the art at the time of

invention to set a completion flag indicative of a successful writing; a setting of a flag to indicate successful writing is a means of ensuring that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is capable of identifying an error state immediately; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a flag setting unit connected to said information processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 25.

61. As per claim 26, the rejection of claim 23 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley is incorporated herein. In addition, Vilhuber discloses the information management system according to claim 23 further comprising a deleting unit connected to said information processing unit for deleting the digital certificate from said information processing device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device. (deletion of memory state in dynamic memory is an inherent feature)

62. As per claim 27, Vilhuber discloses an information management system over a network (fig. 2), comprising:

- ee. communication devices each further comprising a memory unit for storing a predetermined number of digital certificates (fig. 2, reference no. 104);
- ff. an information processing unit connected to said communication devices (fig. 2, reference no. 202) further comprising:
  - x. an input unit for inputting identification information for said communication device (5:53-67; 9:6-38);
  - xi. a digital certificate transmission request unit for adding identification information of a predetermined number of said communication devices for production to a digital certificate transmission request for obtaining digital certificates to be used for confirming said communication devices during communication and for transmitting the identification-information-added digital certificate transmission (fig. 2, reference no. 206); and
  - xii. a first digital certificate transmission unit connected to said digital certificate transmission request unit (fig. 2, reference nos. 110, 206 and 250);
- gg. a digital certificate management unit connected to said information processing unit (fig. 2, reference nos. 206 and 110; 8:19-21, disclosing a preferred embodiment where the provisioning environment "communicate[s] with

a remote certificate authority 110 as part of a device identity verification and certification process."); further comprising:

xiii. a digital certificate generation unit for receiving the identification-information-added digital certificate transmission and generating a corresponding one of the digital certificates (fig. 2, reference nos. 110 and 210); and

xiv. a second digital certificate transmission unit connected to said digital certificate generation unit for transmitting the corresponding one of the digital certificates to said information processing unit (fig. 2, reference nos. 110, 206 and 250),

hh. wherein said digital certificate transmission unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate transmission unit transmitting the correspondingly received digital certificate to the communication device and writing the correspondingly received digital certificate to said memory in the communication device. (6:36-50; 5:19-24; 8:5-8 and lines 36-49)

63. Vilhuber does not disclose a production management system for providing production numbers as a part of identification information; a scanning unit for scanning a barcode from said communication device as identification information for said communication device; wherein the first digital certificate transmission unit reading the correspondingly received digital certificate from said digital certificate storage unit based

upon the scanned identification information. Amro discloses a system for building a computer system, whereby a production identifier is associated with order information and is stored in a database; wherein the production identifier is coded as a barcode on an identification device; once the barcode is scanned, the production identifier is stored in a server; when the computer system is assembled then powered up, the production identifier is sent to the server, where a script on the server associated with the scanned identifier is executed; one or more software components are then installed onto the computer system by the server. Figs. 2 and 3, col. 2:60-3:8; 3:52-4:4; 4:48-65. It would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a production management system for providing production numbers as a part of identification information; a scanning unit for scanning a barcode from said communication device as identification information for said communication device; wherein the first digital certificate transmission unit reading the correspondingly received digital certificate from said digital certificate storage unit based upon the scanned identification information. One would be motivated to do so for an efficient means of provisioning computing systems as known to one of ordinary skill in the art. See also, Amro, col. 1:27-32.

64. In addition, Vilhuber does not disclose a digital certificate storage unit for storing the digital certificates; wherein the digital certificate storage unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate transmission unit reading the

correspondingly received digital certificate from said digital certificate storage unit based upon the inputted identification information. Ramasubramani discloses a centralized certificate management system whereby a certificate management module reserves a fixed number of free certificates to reduce latency of obtaining certificates by its requestors; when a request for a certificate is submitted to the certificate management device, a new certificate is generated to maintain the number of free certificates; wherein a request for a certificate includes a device ID, which indexes an account having associated with the account a digital certificate. Col. 6:56-6:60. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a digital certificate storage unit for storing the digital certificates; wherein the digital certificate storage unit receiving the corresponding one of the digital certificates from said second digital certificate transmission unit in response to the identification-information-added digital certificate transmission request, said first digital certificate transmission unit reading the correspondingly received digital certificate from said digital certificate storage unit based upon the inputted identification information. One would be motivated to do so to reduce the latency of obtaining certificates by its requestors as disclosed by Ramasubramani, *ibid*.

65. Moreover, the feature of connecting the digital certificate transmission request unit with the scanning unit would be obvious to one of ordinary skill in the art because the information scanned from the barcode is included in the certificate request.

66. Finally, although Vilhuber does not disclose the communication devices further comprising a communication terminal for obtaining a predetermined number of daily

production units according to a daily production plan wherein the memory unit stores a predetermined number of digital certificates for the daily production units, daily production schedules are conventional means in the art of manufacturing. Daily production schedules enable the manufacturer to implement "just-in-time" (JIT) principles. JIT principles suggest obtaining materials and similar requirements for the production of a product on an as needed basis. One of the benefits of JIT principles is that delivery of essential requirements is received on a continuous basis, thereby alleviating problems associated with large sporadic deliveries (e.g. storage allocation, bottlenecks, etc.). For example, Beasley discloses a computer integrated manufacturing system, whereby daily production schedules are established using multiple levels of computer control; the system further implements JIT by obtaining the relevant materials and supplies when the materials and supplies are needed. Col. 2:2-7; 3:40-67; 26:61-29:5 ("Scheduling"), esp. 27:29-37 and 28:49-54; 32:28-32. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Vilhuber such that the communication devices further comprises a communication terminal for obtaining a predetermined number of daily production units according to a daily production plan wherein the memory unit stores a predetermined number of digital certificates for the daily production units. One would be motivated to do so to implement JIT principles to derive a more efficient means of production as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 27.



67. As per claim 28, the rejection of claim 27 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley is incorporated herein. In addition, Vilhuber discloses wherein said digital certificate transmission unit confirms the communication device based upon the digital certificate and further comprises a coding unit connected to said first digital certificate transmission unit for coding each of the correspondingly read digital certificates prior to transmitting to a corresponding one of the communication devices. Fig. 2, reference nos. 206 and 210.

68. As per claim 29, the rejection of claim 27 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley is incorporated herein. Although Vilhuber does not expressly disclose the information management system according to claim 27 further comprising a flag setting unit connected to said information processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device; it is notoriously well known in the art at the time of invention to set a completion flag indicative of a successful write; a setting of a flag to indicate successful writing is a means of ensuring that the value stored in memory is valid; when the flag is not set after an attempted writing, the procedure is capable of identifying an error state immediately; this feature is generally known in the art as a validity bit. Official notice of this teaching is taken. It would be obvious to one of

ordinary skill in the art at the time the invention was made for the invention of Vilhuber to include a flag setting unit connected to said information processing unit for setting a completion flag indicative of successfully writing the digital certificate in the communication device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device. One would be motivated to do so to identify error states as soon as they occur to prevent the initial error from compounding further into the method as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 29.

69. As per claim 30, the rejection of claim 27 under 35 USC 103(a) as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley is incorporated herein. In addition, Vilhuber discloses the information management system according to claim 27 further comprising a deleting unit connected to said information processing unit for deleting the digital certificate from said information processing device after said first digital certificate transmission unit successfully completes writing of the digital certificate in the communication device. (deletion of memory state in dynamic memory is an inherent feature)

70. As per claim 31, it is a claim corresponding to claim 1, and it does not teach or define above the information claimed in claim 1. Therefore, claim 31 is rejected as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley for the same reasons set forth in the rejection of claim 1.

71. As per claims 32-35, they are claims corresponding to claims 2-5, and they do not teach or define above the information claimed in claims 2-5. Therefore, claims 32-35 are rejected as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley for the same reasons set forth in the rejections of claims 32-35.

72. As per claims 36-39, they are claims corresponding to claims 6-9, and they do not teach or define above the information claimed in claims 6-9. Therefore, claims 36-39 are rejected as being unpatentable over Vilhuber in view of Amro, Ramasubramani and Beasley for the same reasons set forth in the rejections of claims 6-9.

#### ***Communications Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUNG KIM whose telephone number is (571)272-3804. The examiner can normally be reached on FLEX.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Jung Kim/  
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